

Application No. 10/816,380  
Amendment Under 37 CFR §1.312 dated January 24, 2005  
Reply to Notice of Allowance December 22, 2004

**Listing of Claims:**

1. (Previously Presented) A method of therapeutically treating a disease characterized by an amyloid deposit of A $\beta$  in a patient, comprising:

administering an immunogenic A $\beta$  fragment in a regime effective to induce an immune response comprising antibodies to the A $\beta$  fragment and thereby therapeutically treat the disease in the patient; and

monitoring the patient for the immune response, wherein the monitoring comprises detecting antibodies having A $\beta$  binding specificity.

2. (Previously Presented) The method of claim 1, wherein the patient is a human.

3. (Previously Presented) The method of claim 1, wherein the disease is Alzheimer's disease.

4. (Cancelled)

5. (Previously Presented) The method of any one of claims 1-3, wherein the patient is under 50.

6. (Previously Presented) The method of any one of claims 1-3, wherein the patient has inherited risk factors indicating susceptibility to Alzheimer's disease.

7. (Previously Presented) The method of any one of claims 1-3, wherein the patient has no known risk factors for Alzheimer's disease.

8. (Previously Presented) The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is greater than 10  $\mu$ g.

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9. (Previously Presented) The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is at least 20  $\mu$ g.

10. (Previously Presented) The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is at least 50  $\mu$ g.

11. (Previously Presented) The method of any one of claims 1-3, wherein the dose of the A $\beta$  fragment administered to the patient is at least 100  $\mu$ g.

12. (Previously Presented) The method of any one of claims 1-3, wherein the A $\beta$  fragment is administered in aggregated form.

13. (Previously Presented) The method of any one of claims 1-3, wherein the A $\beta$  fragment is administered orally, subcutaneously, intramuscularly, topically or intravenously.

14. (Previously Presented) The method of any one of claims 1-3, wherein the A $\beta$  fragment is administered intramuscularly or subcutaneously.

15. (Previously Presented) The method of claim 1, wherein the A $\beta$  fragment is administered with GM-CSF in the regime.

16. (Previously Presented) The method of claim 1, further comprising administering an adjuvant, wherein the adjuvant enhances the immune response to the A $\beta$  fragment.

17. (Previously Presented) The method of claim 16, wherein the adjuvant and the A $\beta$  fragment are administered together as a composition.

18. (Previously Presented) The method of claim 16, wherein the adjuvant is administered before the A $\beta$  fragment.

19. (Previously Presented) The method of claim 16, wherein the adjuvant is administered after the A $\beta$  fragment.

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20. (Previously Presented) The method of claim 16, wherein the adjuvant is alum.
21. (Previously Presented) The method of claim 16, wherein the adjuvant is QS21.
22. (Previously Presented) The method of claim 16, wherein the adjuvant is M-CSF.
23. (Previously Presented) The method of claim 16, wherein the dose of the A $\beta$  fragment is greater than 10  $\mu$ g.
24. (Previously Presented) The method of claim 16, wherein the dose of the A $\beta$  fragment is at least 20  $\mu$ g.
25. (Previously Presented) The method of claim 16, wherein the dose of the A $\beta$  fragment is at least 50  $\mu$ g.
26. (Previously Presented) The method of claim 16, wherein the dose of the A $\beta$  fragment is at least 100  $\mu$ g.
27. (Previously Presented) The method of claim 16, wherein the A $\beta$  fragment is A $\beta$ 1-5.
28. (Previously Presented) The method of claim 27, wherein A $\beta$ 1-5 consists of the first five N-terminal amino acids of SEQ ID NO:1.
29. (Previously Presented) The method of claim 16, wherein the A $\beta$  fragment is A $\beta$ 1-6.
30. (Previously Presented) The method of claim 29, wherein A $\beta$ 1-6 consists of the first six N-terminal amino acids of SEQ ID NO:1.

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31. (Previously Presented) The method of claim 16, wherein the A $\beta$  fragment is A $\beta$ 1-12.

32. (Previously Presented) The method of claim 31, wherein A $\beta$ 1-12 consists of the first twelve N-terminal amino acids of SEQ ID NO:1.

33. (Previously Presented) A method of prophylaxis of a disease characterized by an amyloid deposit of A $\beta$  in a patient, comprising:

administering an immunogenic A $\beta$  fragment in a regime effective to induce an immune response comprising antibodies to the A $\beta$  fragment and thereby effect prophylaxis of the disease in the patient; and

monitoring the patient for the immune response, wherein the monitoring comprises detecting antibodies having A $\beta$  binding specificity.

34. (Previously Presented) The method of claim 33, wherein the patient is a human.

35. (Previously Presented) The method of claim 33, wherein the disease is Alzheimer's disease.

36. (Previously Presented) The method of any one of claims 33-35, wherein the patient is asymptomatic.

37. (Previously Presented) The method of any one of claims 33-35, wherein the patient is under 50.

38. (Previously Presented) The method of any one of claims 33-35, wherein the patient has inherited risk factors indicating susceptibility to Alzheimer's disease.

39. (Previously Presented) The method of any one of claims 33-35, wherein the patient has no known risk factors for Alzheimer's disease.

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40. (Previously Presented) The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is greater than 10  $\mu$ g.

41. (Previously Presented) The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is at least 20  $\mu$ g.

42. (Previously Presented) The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is at least 50  $\mu$ g.

43. (Previously Presented) The method of any one of claims 33-35, wherein the dose of the A $\beta$  fragment administered to the patient is at least 100  $\mu$ g.

44. (Previously Presented) The method of any one of claims 33-35, wherein the A $\beta$  fragment is administered in aggregated form.

45. (Previously Presented) The method of any one of claims 33-35, wherein the A $\beta$  fragment is administered orally, subcutaneously, intramuscularly, topically or intravenously.

46. (Previously Presented) The method of any one of claims 33-35, wherein the A $\beta$  fragment is administered intramuscularly or subcutaneously.

47. (Previously Presented) The method of claim 33, wherein the A $\beta$  fragment is administered with GM-CSF in the regime.

48. (Previously Presented) The method of any one of claims 33-35, further comprising administering an adjuvant, wherein the adjuvant enhances the immune response to the A $\beta$  fragment.

49. (Previously Presented) The method of claim 48, wherein the adjuvant and the A $\beta$  fragment are administered together as a composition.

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50. (Previously Presented) The method of claim 48, wherein the adjuvant is administered before the A $\beta$  fragment.

51. (Previously Presented) The method of claim 48, wherein the adjuvant is administered after the A $\beta$  fragment.

52. (Previously Presented) The method of claim 48, wherein the adjuvant is alum.

53. (Previously Presented) The method of claim 48, wherein the adjuvant is QS21.

54. (Previously Presented) The method of claim 48, wherein the adjuvant is M-CSF.

55. (Previously Presented) The method of claim 48, wherein the dose of the A $\beta$  fragment is greater than 10  $\mu$ g.

56. (Previously Presented) The method of claim 48, wherein the dose of the A $\beta$  fragment is at least 20  $\mu$ g.

57. (Previously Presented) The method of claim 48, wherein the dose of the A $\beta$  fragment is at least 50  $\mu$ g.

58. (Previously Presented) The method of claim 48, wherein the dose of the A $\beta$  fragment is at least 100  $\mu$ g.

59. (Previously Presented) The method of claim 48, wherein the A $\beta$  fragment is A $\beta$ 1-5.

60. (Previously Presented) The method of claim 59, wherein A $\beta$ 1-5 consists of the first five N-terminal amino acids of SEQ ID NO:1.

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61. (Previously Presented) The method of claim 48, wherein the A $\beta$  fragment is A $\beta$ 1-6.

62. (Previously Presented) The method of claim 61, wherein A $\beta$ 1-6 consists of the first six N-terminal amino acids of SEQ ID NO:1.

63. (Previously Presented) The method of claim 48, wherein the A $\beta$  fragment is A $\beta$ 1-12.

64. (Previously Presented) The method of claim 63, wherein A $\beta$ 1-12 consists of the first twelve N-terminal amino acids of SEQ ID NO:1.